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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/755,996	01/13/2004	Peter M. Bonutti	780-A03-021-5	1472

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PAUL D. BIANCO
Fleit Gibbons Gutman Bongini & Bianco PL
21355 EAST DIXIE HIGHWAY
SUITE 115
MIAMI, FL 33180

EXAMINER

HOFFMAN, MARY C

ART UNIT	PAPER NUMBER
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3733

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/755,996	Applicant(s) BONUTTI, PETER M.	
	Examiner MARY HOFFMAN	Art Unit 3733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-10,13,15,19,30-33,35,37-39,41 and 43-46 is/are pending in the application.
- 4a) Of the above claim(s) 33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-10,13,15,19,30-32,35,37-39,41 and 43-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>07/28/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 4-10, 13, 15, 19, 30-32, 35-39 and 41 are rejected under 35

U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 30 and 41 recite "said first surface maintaining an equal distance from said second surface when moving from the wide position to the narrow position" and this feature is not found anywhere in the original disclosure.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 4-10, 13, 15, 19, 30-32, 35-39 and 41 are rejected under 35

U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The examiner does not understand what the limitation "said first surface maintaining an equal distance from said second surface when moving from the wide position to the narrow position" in claims 30 and 41 is referring to.

In addition, claim 15 depends from a cancelled claim and is therefore indefinite.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 8-9, 13, 15, 19, 30-32, 35, 37-39, 41 and 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stone (U.S. Patent No. 6,008,433) in view of Michelson (U.S. Patent No. 5,609,635) and Henderson et al. (U.S. Patent No. 6,066,175).

Stone discloses an implantable device capable of reversibly changing a spatial relationship between a first bone and a second bone from a wide position to a narrow position, comprising a first surface capable of abutting the first bone in the wide position and the narrow position; a second surface capable of abutting the second bone in the wide position and the narrow position; and a body interconnecting the first surface and the second surface, the first surface maintaining an equal distance from the second surface when moving from the wide position to the narrow position (the device shown in FIG. 3C and 4A is capable of being inserted on its side and then be rotated 90 degrees). The implantable device is capable of being rotated via the pin about an axis to move between the wide position and the narrow position and not move longitudinally along the axis when moving from the wide position to the narrow position. The device

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comprises a bone growth promoting material (col. 6, lines 60-61). The implant is adapted to one connected to only one of the bones. The first surface tapers to form a pointed edge with the second surface. A side surface corresponding to the outer surface of the bone connects the first and second surfaces. The body has an open cellular structure to provide cavities in which bone can grow through (col. 6, lines 34-36). The body is made of a biocompatible metallic material (col. 6, lines 44-46). At least some of the cavities contain a bone growth promoting material. (col. 7, lines 8-14).

Stone discloses the claim invention except for 1.) the device being coated with a bone growth promoting material including a bone morphogenic protein.; and 2.) a channel extending through both the first major surface and side surface, a second channel extending through both s second major surface and side surface, and screws angularly disposed in the channels and nested in the side surface.

1.) Michelson discloses using a coating of bone growth promoting material, wherein the bone growth promoting material includes a bone morphogenic protein, in order to promote bioactive fusion (col. 9, lines 20-24). It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the device of Stone with the coating of Michelson in order to promote bioactive fusion.

2.) Henderson et al. disclose an implantable device including a first channel extending through the first major surface and side surface, a second channel extending through a second major surface and side surface, and first and second screws angularly disposed in the channels and nested in the side surface in order to in order to provide

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means of attachment to the bone/additional bone fixation (ref. #48, 49, FIGS. 8-9, col. 9, lines 29-31). It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the device of Stone with a first channel extending through the first major surface and side surface, a second channel extending through a second major surface and side surface, and first and second screws angularly disposed in the channels and nested in the side surface in view of Henderson in order to provide means of attachment to the bone/additional bone fixation.

Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stone (U.S. Patent No. 6,008,433) in view of Michelson (U.S. Patent No. 5,609,635) and Henderson et al. (U.S. Patent No. 6,066,175) further in view of Jefferies (U.S. Patent No. 4,394,370).

Stone in view of Michelson and Henderson disclose the claimed invention except for the coating being apatite compositions such as demineralized bone powder and collagen.

Jefferies teaches both demineralized bone powder and collagen as materials to induce the formation of osseous tissue (Abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the coating of the Stone in view of Michelson and Henderson to include demineralized bone powder and collagen in view of Jeffries, since those materials are well known in the art of bone fusion as materials to induce the formation of osseous tissue.

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Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stone (U.S. Patent No. 6,008,433) in view of Michelson (U.S. Patent No. 5,609,635) and Henderson et al. (U.S. Patent No. 6,066,175) further in view of Zdeblick et al. (U.S. Patent No. 5,669,909).

Stone in view of Michelson and Henderson disclose the claimed invention except for using tantalum.

Zdeblick et al. teaches using porous tantalum in implants to allow bone ingrowth.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the device of Stone in view of Michelson and Henderson using tantalum in view of Zdeblick et al. to allow bone ingrowth.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

The new rejection of the current independent claims includes Henderson et al. (U.S. Patent No. 6,066,175), a reference formerly cited only in the rejection of several dependent claims (i.e. claims 15 and 36-38). The limitations of these dependent claims now appear in the independent claims. However, Applicant has provided no reasoning in the remarks as to why Henderson et al. is not applicable prior art. Therefore, the rejections are deemed proper.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARY HOFFMAN whose telephone number is (571)272-5566. The examiner can normally be reached on Monday-Thursday 9:00-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo C. Robert can be reached on 571-272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mary C. Hoffman/
Examiner, Art Unit 3733
/Eduardo C. Robert/
Supervisory Patent Examiner, Art Unit 3733